

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the present application:

1-20. (Canceled)

21. (Currently amended) A device to log information in a network cache, the device comprising:

an interface to allow selection of a protocol, selection for logging of some or all of a plurality of fields of the protocol that may be present in a message ~~messages~~ to be received ~~for logging~~, and specification of a sequence in which the selected fields are to appear in a log file;

a first data structure for storing a value indicating a position in the specified sequence for each selected field;

a protocol independent log module to receive information from an application module, to store the information in a second data structure, and to store a reference to the information for each selected field stored in the second data structure in a location of a third data structure that corresponds to the position in the specified sequence for the corresponding field; and

a log file wherein the information for each selected field from the second data structure is sequentially written using the reference from the third data structure.

22. (Previously presented) The device of claim 21, wherein the application module is protocol specific and obtains information for each selected field associated with the message.

23. (Previously presented) The device of claim 21, wherein the interface allows the creation of new fields in addition to the plurality of fields.

24. (Previously presented) The device of claim 21, wherein each location in the first data structure is pre-initialized to contain a flag before the specified sequence is stored, the flag being utilized as an indicator that the corresponding field was not selected for logging.

25. (Previously presented) The device of claim 21, wherein the interface is a graphical user interface.

26. (Previously presented) The device of claim 21, wherein the interface is a command line interface.

27. (Currently amended) A method of logging information in a network cache, the method comprising:

providing an interface to allow selection for logging of some or all of a plurality of fields that may be present in a message to be received ~~for logging~~ and specification of a sequence in which the selected fields are to appear in a log file;

storing in a first data structure a value indicating the position in the specified sequence of each selected field;

in response to a message received over a network from a remote node,

obtaining information for each selected field associated with the message

and storing the information in a second data structure, in a sequence

independent of the specified sequence,

storing in a third data structure, based on the first data structure, a reference to the information for each selected field stored in the second data structure, including storing each reference in a location of the third data structure that corresponds to the position in the specified sequence of the corresponding field; and

using the third data structure to output the information for each selected field in the second data structure to a log file, such that the information for each selected field appears in the log file according to the specified sequence.

28. (Previously presented) The method of claim 27, wherein the interface allows creation of new fields in addition to the plurality of fields.

29. (Previously presented) The method of claim 27, wherein the information for each field is converted to an ASCII representation and is of variable length.

30. (Previously presented) The method of claim 27, wherein each location in the first data structure is pre-initialized to contain a flag before the specified sequence is stored, the flag to be utilized as an indicator that the corresponding field was not selected for logging.

31. (Previously presented) The method of claim 27, wherein the second data structure and the third data structure are created to respond to logging for the message and destroyed once logging for the message is completed.

32. (Previously presented) The method of claim 27, wherein the first data structure persists through logging for a plurality of messages received from remote nodes.

33. (Previously presented) The method of claim 27, wherein using the third data structure to output the information further comprises sequentially accessing the third data structure to read the position of the information corresponding to each selected field and accessing the second data structure to read information corresponding to each selected field at the position indicated by the reference.

34. (Currently amended) A device for logging information in a network cache, the device comprising:

an interface to allow selection of a protocol, selection for logging of some or all of a plurality of fields of a message to be received ~~for logging~~, the fields corresponding to the selected protocol, and specification of a sequence in which the selected fields are to appear in a log file;

a protocol specific application module to obtain information for each selected field associated with the message;

a protocol independent log module to receive information for each selected field from the protocol specific application module and to store the information for each selected field in a log file in the sequence specified.

35. (Canceled)

36. (Previously presented) The device of claim 36, wherein the interface allows creation of new fields in addition to the plurality of fields.

37. (Canceled)

38. (Previously presented) The device of claim 36, wherein the interface is a graphical user interface.

39. (Previously presented) The device of claim 36, wherein the interface is a command line interface.

40-45. (Canceled)